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(54) Title: TRANSSCLERAL DRUG DELIVERY DEVICE AND RELATED METHODS

(57) Abstract: The invention provides a low-profile, dome-shaped body for attachment to a scleral surface of an eye and defining an internal cavity for receiving a drug or other pharmaceutically active agent. The device has an opening for controllably delivering the drug into the eye at therapeutically effective concentrations over a prolonged period of time. When attached, the device does not affect or otherwise restrict movement of the eye. Features of the invention include an optional drug inlet port and puncture guard, both designed for refilling the device while preventing a needle inserted through the inlet port from contacting the sclera.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2004/004625

## Box II Observations where certain claims were found unsearchable (Continuation of Item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  

Although claims 30,31 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the drug delivery device.
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of Item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Intel Application No  
PCT/US2004/004625

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61F9/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/110591 A1 (KRISHNAMOORTHY RAMESH ET AL) 15 August 2002 (2002-08-15) page 3, paragraph 46 - page 5, paragraph 63 page 5, paragraph 63 page 7, paragraph 83 - paragraph 84 figures 1,2 claims 1,28,29	1-31
X	US 6 413 540 B1 (YAACOB I YOSEPH) 2 July 2002 (2002-07-02) column 3, line 10 - line 18 column 7, line 27 - column 8, line 34 figure 2 figure 6a -/-	1-31

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
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- "O" document referring to an oral disclosure, use, exhibition or other means
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- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

15 November 2004

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## INTERNATIONAL SEARCH REPORT

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02/074196 A (US HEALTH ; YUAN PENG (US); CSAKY KARL G (US); KIM HYUN C (US); SMITH) 26 September 2002 (2002-09-26) page 17, line 12 - page 18, line 5 figures 2A,2B,7,3A,3B page 6, line 25 - page 7, line 9	1,30,31
P,X	WO 03/020172 A (MURPHREE A LINN; SCHMITT ED; DE CARVALHO RICARDO A P) 13 March 2003 (2003-03-13) page 17, line 7 - line 13 page 22, line 1 - line 4 page 22, line 15 - line 18 page 23, line 24 - page 24, line 12 page 26, line 5 - line 10 claims 1,4,12,13,20,24	1-3,11, 12,14, 24-31
A	US 6 251 090 B1 (AVERY ROBERT LOGAN ET AL) 26 June 2001 (2001-06-26) claims 1-22	1-31

before Int'l filing date  
after priority date  
claimed

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Information on patent family members

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